# *CONTENTS*

EDITORIAL xi

ACKNOWLEDGEMENTS xiii

**The Seventeenth Arne Tiselius Memorial Lecture**

Cytofluorometry to Predict Effects of Biological Response Modifiers 3
J. R. HOBBS

**IgG and IgA Subclasses**

Structure, Function Relationships within the Human IgG Subclasses 21
R. JEFFERIS

Structure of the Human IgA Subclasses and Allotypes 27
F. W. PUTNAM

Monoclonal Antibodies against IgG Subclasses 39
A. VLUG, A. J. de BOT, H. BROUWER, G. G. de LANGE, A. M. van LEEUWEN, E. A. de RON and R. V. W. van EIJK

Monoclonal Antibodies against the IgG1 Allotypes G1m(z), G1m(a) and G1M(f): Reactivity and Usefulness in HAI, Direct Elisa and Capture Elisa 49
G. G. de LANGE, A. M. van LEEUWEN, A. VLUG, P. H. van EDDE, P. J. LINCOLN and C. P. ENGELFRIET

One Allele (G2m(n)) of the Human IgG2 Locus is more Productive than the other in Homozygotes and Heterozygotes 57
N. RAUTONEN, H. SARVAS and O. MÄKELÄ

Methodological Pitfalls in Immunoglobulin Subclass Assays: An Investigation of Anti-Ig Subclass Monoclonal Antibody and Jacalin Reactivity 61
P. AUCOUTURIER, N. PINEAU, K. KOBAYASHI and J. L. PREUD'HOMME

Comparison of Normal Values of IgG Subclasses 71
E. J. NIEUWENHUYS and T. A. OUT

Class and IgG Subclass Composition of Antibodies to Group A Streptococcal Carbohydrate in Children 81
A. MORELL and F. SKVARIL

Immunodeficiency and Haemophilus Influenza Type B (HIB) Capsular Polysaccharide Vaccine Failures 87
C. B. REIMER, C. M. BLACK, T. W. WELLS, B. D. PLIKAYTIS, R. A. INSEL, B. GELLIN, D. M. AMBROSINO, G. M. McQUILLAN, H. L. KEYSERLING, G. M. CARLONE, D. J. PHILLIPS and C. V. BROOME

Human IgG Subclass Antibodies to Dietary Antigens—Methodological and Functional Aspects 97
S. HUSBY, G. BAATRUP, J. C. JENSENIUS and S.-E. SVEHAG

Neutrophil Chemiluminescence Induced by Group A Streptococci after Opsonization with Sera and Antibodies of known IgG Subclass Composition 103
R. RUEFENACHT, P. CHASE, T. W. JUNGI and A. MORELL

Functional Role of Secretary IgA1 and IgA2 Antibodies against *Streptococcus Mutans* 109
R. L. GREGORY, J. C. KINDLE, L. C. HOBBS and H. S. MALSTROM

IgG Subclasses of Human Monclones Differ Between Myeloma and Post Bone-Marrow Graft Patients 121
S. WALKER, P. RICHES and J. R. HOBBS

Inter-Laboratory Quality Control Program for IgG Subclass Protein Immunoassays in North America 127
R. G. HAMILTON

Critical Aspects on Diagnosing IgG Subclass Deficiency and its Clinical Consequences 133
L. HAMMERSTRÖM and C. I. E. SMITH

Structural Genetic Alterations in Ig Subclass Deficiencies 139
A. BOTTARO, M. DEMARCHI, G. DELANGE, N. CAPPELLO, R. GALLINA and A. O. CARBONARA

Representation of IgG and IgA Subclasses within Monoclonal Gammapathies of Different Origin—A Minireview 143
J. RADL, J. WELS and C. M. HOOGEVEEN

IgG Subclass Serum Levels in Juevenile Chronic Arthritis 147
A. MARTINI

IgG Subclass Antibodies to Allergens during Immunotherapy 151
R. DJURUP

A Monoclonal Anti-Human IgG-1 Subclass Antibody Produced with Secondary *in vitro* Immunization 157
W. J. A. BOERSMA, J. E. M. van LEEUWEN, C. DEEN, J. RADL, J. J. HAAIJMAN, M. M. SCHELLEKENS and E. CLAASEN

Anti-Peptide Antibodies as Subclass Specific Reagents: Epitope Mapping of Human IgG-2 161
W. J. A. BOERSMA, C. DEEN, K. GERRITSE, N. D. ZEGERS, J. J. HAAIJMAN and E. CLAASEN

Isotype Analysis of Specific Antibody Responses in Long-Term Survivors of Bone-Marrow Transplantation 167
P. RICHES, B. POLCE and R. HONG

Comparative Studies of the Biological Properties of Human IgA Subclasses 173
J. MESTECKY, C. LUE, A. TARKOWSKI, I. LADJEVA, J. H. PETERMAN, Z. MOLDOVEANU, M. W. RUSSELL, T. A. BROWN, J. RADL, J. J. HAAIJMAN, H. KIYONO and J. R. McGHEE

Interleukin Cascade for the Regulation of IgA Synthesis and Immune Responses 183
J. R. McGHEE, K. W. BEAGLEY, J. H. ELDRIDGE, K. FUJIHASHI, C. LUE, Z. MOLDOVEANU, J. MESTECKY, J. RADL and H. KIYONO

Interaction of IgA with Complement and Phagocytes 193
M. R. DAHA, P. S. HIEMSTRA, A. GORTER, M. RITS, A. W. L. van den WALL BAKE and L. A. van ES

Significance of Fab Fragments of IgA1 Antibodies in Bacterial Evasion of Host Defense Mechanisms 205
M. W. RUSSELL, M. KILIAN, J. REINHOLDT and B. MANSA

Gm Markers as Indicators of the Occurrence of Transduction of Genes from one Person to Another 211
R. GRUBB and L. KJELLEN

The Natures and Sources of Natural Biliary Immunoglobulins 215
G. D. F. JACKSON, P. G. C. HANSEN and R. J. MANNING

Serum and Salivary IgA1, IgA2, IgG and IgM Antibodies to Bacterial Antigens in Aged, Edentulous, and Normal Adults 223
M. W. RUSSELL, S. J. PRINCE, G. J. LIGTHART, J. RADL and J. MESTECKY

Immune Mechanisms in Periodontitis: Total and Antigen specific IgG and IgA Subclass Antibody-Producing Cells at the Disease Site 229
H. KIYONO, T. OGAWA, A. TARKOWSKI, M. L. McGHEE, Z. MOLDOVEANU, J. MESTECKY and J. R. McGHEE

Quantitative Detection of Class-Specified Rheumatoid Factors and IgA Rheumatoid Factor Subclasses 239
H. G. OTTEN, M. R. DAHA, J. RADL and F. C. BREEDVELD

Alcohol and the IgA Immune System 247
A. van de WIEL, H. J. SCHUURMAN and L. KATER

Structural and Functional Aspects of Human IgA1. Epitope Expression, Jacalin Binding and Complement Activation 255
J. BIEWENGA and P. S. HIEMSTRA

## Cytofluorometry

Phenotypic and Functional Changes During T Cell Activation 269
W. S. HOLTER

Measurement by Flow Cytometry of Intracellular Free $Ca^{2+}$ Concentration and Complement Receptor Expression in Activated Neutrophils and Monocytes 277
M. O. SPYCHER, R. HOFFMAN, P. J. SPÄTH, J. J. BURCKHARDT and D. T. FEARON

Polymorphonuclear Leukocyte Heterogeneity Defined by 31D8 Expression 287
A. M. EVANS and J. D. CHAMBERS

The Use of Flow Cytometry in the Study of Auto-Immune Neutropenia 293
M. G. MACEY, J. SANGSTER and P. A. VEYS

CD8 Deficiency in Papuloerthroderma 303
T. R. WHITE, J. A. A. LANGTRY, R. BEETHAM, C. M. E. ROWLAND PAYNE, R. C. D. STAUGHTON and J. R. HOBBS

The Clinical Value of DNA Analysis using Flow Cytometry 313
B. K. SHENTON, S. NICHOLSON, D. TALBOT, A. L. GIVAN, J. R. FARNDON, I. D. A. JOHNSTON, R. M. R. TAYLOR and G. PROUD

Super-Avidin-Biotin System for Detecting Low-Density Cell Surface Antigens by Flow Cytometry 321
J. H. M. COHEN, J. P. AUBRY, J. BANCHEREAU, M. D. KAZATCHKINE and J. P. REVILLARD

Flow Cytometric Analysis of Sequential Tumour Biopsies during Therapy 325
J. E. D. DYSON

Antibody–Antibody and Antibody–Antigen Interactions Studied by Flow Cytometry 331
R. A. ROBINS, E. B. AUSTIN, J. DAY, L. G. DURRANT, M. LAYTON and R. R. LAXTON

Monitoring Cell Fusion using Flow Cytometry 341
M. G. ORMEROD and M. J. O'HARE

Measurement of Oncoproteins Simultaneously with DNA in Individual Cells using Flow Cytometry 345
J. V. WATSON

Analysis of the Hoechst-33342 Fluorescence Emission Spectrum in Individual Cells with Reference to Multi-Drug Resistance 359
J. V. WATSON, S. A. MORGAN and P. J. SMITH

Phenotypic and Functional Characteristics of Human Post Thymic Maturational T Cell Subsets 373
M. W. MAKGOBA, S. SHAW and M. E. SANDERS

The Histopathology, Expression of B-Human Chorionic Gonadotrophin and Flow Cytometric Analysis of Invasive Transitional Cell Carcinoma of the Bladder 377
J. E. MARTIN, B. J. JENKINS, R. J. ZUK, M. W. LOWDELL, H. DORAN and S. I. BAITHUN

Serum and Faecal Proteins during Crohn's Disease 383
N. KAPEL, D. MEILLET, D. RAICHVARG and J. G. GOBERT

CD8 Deficiency in Patients with Muscle Fatigue following Suspected Enteroviral Infections (*Myalgia encephalitica*) 391
J. R. HOBBS, T. R. WHITE, J. SHELDON, J. A. MOWBRAY and J. E. MONROE

## Lipoproteins

A Decrease in Density of HDL is Associated with Reverse Cholesterol Transport from the Perfused Rat Spleen 401
M. A. MINDHAM and P. A. MAYES

Isolation and Properties of Apolipoprotein A for Therapeutic Use 409
P. G. LERCH, J.-J. MORGENTHALER, M. C. PEITSCH, H. FRIEDLI, G. HODLER, J. E. DORAN, H. ISLIKER and H.-J. HEINIGER

Fibrates, Sequestrant Resines and HMG CoA Reductase Inhibitors and Lipoprotein Particles 417
J. M. BARD, H. J. PARRA, P. DOUSTE-BLAZY and J. C. FRUCHART

Isolation and Characterization of the Protein and cDNA for $ß_2$-Glycoprotein I (Apolipoprotein H) 423
J. DAY, M. BERKAW and P. ARNAUD

Role of Apolipoprotein A IV in Promotion of Cellular Cholesterol Efflux from Adipose Cells 431
A. STEINMETZ, R. BARBARAS, J.-C. FRUCHART and G. AILHAUD

Simplified and Economical Procedure for the Fractionation of Apolipoproteins in Immobilized pH Gradients 437
M. KOHLMEIER, P. SINHA, E. KÖTTGEN and P. G. RIGHETTI

## Additional Presentations

*Pseudomonas aeruginosa* Exoproducts Modulate Neutrophil Chemiluminescence 447
P. CHASE, F.-E. MALY, U. B. SCHAAD and A. MORELL

IgG Subclass Antibodies in Human and Murine Schistosomiasis 451
C. CATTY, M. VARAGUNAM and A. JASSIM

Cytofluorimetric Assessment of Cellular Peroxidative Activity using 2'7'-Dichlorofluorescin Diacetate 459
G. MELINO, V. DE LAURENZI, I. SAVINI and P. GUERRIERI

Modulation of Antigenic Profile by Persistent Infection of Sendai Virus in Human Neuroblastoma 469
N. VILLANI, E. BALESTRA, A. FIRRIOLO, M. C. RIVETTA, G. MELINO and R. CALIO'

Author Index 477

Subject Index 479